

## WHAT IS CLAIMED IS:

1. A package for Optical semiconductor device comprising;

5 a stem having an under surface, an upper surface, a mount to be mounted with an optical semiconductor device on the upper surface, one or more through holes penetrating from the upper surface to the under surface,

a lead terminal for signal supply penetrating one of said through holes so as to be insulated by an insulator,

10 wherein said upper surface has an earth conductor adjacent to the lead terminal for signal supply projected from the upper surface.

2. The package for Optical semiconductor devices according to claim 1;

15 wherein said earth conductor is enclosing at least part of said lead terminal for signal supply projected from the upper surface.

3. The package for Optical semiconductor device according to claim 2;

20 wherein said earth conductor is surrounding a range of 150 degrees or more centering on the center axis of said lead terminal for signal supply projected from the upper surface.

25 4. The package for Optical semiconductor device according to claim 1;

wherein said earth conductor is formed with said mount monolithically.

5. The package for Optical semiconductor device according to claim 1;

5 wherein said earth conductor overlaps with said insulator.

6. The package for Optical semiconductor device according to claim 1;

10 wherein a dielectric member is placed between said earth conductor and said lead terminal for signal supply.

7. The package for Optical semiconductor device according to claim 1;

15 wherein earth electrode terminals are arranged in both sides of said terminal for signal supply projected from the under surface of the above-mentioned stem.

8. The package for Optical semiconductor device according to claim 1;

wherein said earth electrode terminals are monolithically integrated with said stem.

20 9. The package for Optical semiconductor device according to claim 1;

further comprising a lead terminal for signal supply pairing with said lead terminal for signal supply.

25 10. The package for Optical semiconductor device according to claim 1;

wherein said earth conductor is formed with said mount monolithically and said mount is attached on said stem so that said earth conductor overlaps with said insulator.

11. The package for Optical semiconductor device  
5 according to claim 1;

wherein said mount and said stem are produced by press processing, respectively.

12. The package for Optical semiconductor device according to claim 10;

10 wherein a distance between said earth conductors and said lead terminal for signal supply is set so that a characteristic impedance of a transmission line constituted with said lead terminal for signal supply projected from the upper surface of said stem is set to 60 ohms or less.

15 13. The package for Optical semiconductor device according to claim 10;

wherein a distance between said earth conductors and said lead terminal for signal supply is 0.175mm or less.

14. The package for Optical semiconductor device  
20 according to claim 10;

further comprising a guide for positioning said mount on the upper surface of said stem.

15. The package for Optical semiconductor device according to claim 10;

25 wherein a tip portion of said lead terminal for signal

supply is deformed so that said characteristic impedance of said transmission line become small.

16. The package for Optical semiconductor device according to claim 15;

5        wherein said lead terminal for signal supply is formed in a cylinder shape and said tip portion is deformed by crushing the cylinder shape into flat.

17. The package for Optical semiconductor device according to claim 15;

10        wherein a face of the earth conductor surrounding said lead terminal is crooked along with said deformed tip portion of said lead terminal for signal supply.

18. The package for Optical semiconductor device according to claim 10;

15        wherein said mount has a step at a corner thereof in the lap portion of said earth conductor and said insulator so that said earth conductor is not contact the direct above-mentioned insulator.

19. The package for Optical semiconductor device according to claim 10;

20        wherein said mount is placed on the upper surface of said stem with a plinth between them in the lap portion of said earth conductor and said insulator so that said earth conductor is not contact the direct above-mentioned  
25    insulator.

20. The package for Optical semiconductor device according to claim 10;

wherein -- said mount has a corner made in a circumference shape in the lap portion of said earth conductor and said insulator so that said earth conductor  
5 is not contact the direct above-mentioned insulator.